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# ICT literacy: a technical or non-technical issue?

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*In this short reply to Riis' paper I first deal with his perceptive defence of ICT literacy, to which I fully subscribe, showing how his ideas might gain from highlighting the 'technical' dimensions involved in literacy practices. Second, this will allow me to make some comments regarding the curricular and organizational aspects of contemporary (school) education, which forms the largest part of his paper. My main line of criticism towards Riss' paper is that I defend a 'technical' rather than a 'non-technical' account of digital literacy.*

I agree with Riis that the most common approach in favour of ICT literacy, often shared by policy-makers, is to regard it as a *practical skill.* This is to say that in today's world students should become competent users of the newest technologies, i.e. they should be able to use ICT smoothly and efficiently in daily life. To this popular approach the importance of digital 'literacy' could be defended by drawing an analogy with the importance of basic literacy skills in past times: lacking ICT literacy comes down to the same impairment suffered by people without knowledge of the alphabet. If this account might seem straightforward enough at first sight, Riis argues for a more fundamental concept of ICT literacy. Drawing from Rheingold, he argues for something more than just knowing how to work with digital media in a 'technical way'. The ICT literate should learn to take a distinct attitude vis-à-vis the technologies in question, and more precisely a *critical* attitude. The 'digital natives' that populate today's classrooms shouldn't solely learn what they can do with ICT, but also come and see the limitations and dangers ICT involve. It is precisely in this fundamental and critical sense that ICT literacy should be an indispensable precondition for the art of living well. Taking the analogy with 'traditional' literacy a step further: in order to become a literate person much more is required than the mere ability of reading and writing. Instead, it is equally important to come and understand that not all texts contain true information, that certain genres shouldn't be taken literally, etc.

Now, using ICT inevitably implies two risks, viz. the inherent temptation of regarding ICT as an end-in-itself, and the risk to get fast and easily distracted. The first danger relates to the penchant to immediately define any problem that shows up as a call for more and better use of ICT technology, leaving aside the question whether or not we really need to rely on (so

much of) these technologies in the first place. So, if today we are up to decreased levels of attention in classrooms, it has become almost natural to look for solutions at the level of the technology we use (e.g. developing a program that makes it impossible to switch between windows or apps). Riis, on the other hand, would argue for an altogether different approach. Admittedly, attention is indispensable for education to take place and there is no escape from distraction when using screen-based technologies. Therefore, we would better acknowledge the limitations of the digital. More importantly, we would be well advised to turn attention-formation into a basic part of schooling, and indeed of the art of living in our days.

Here, Riss is very close to the French philosopher Bernard Stiegler (2010), who lambastes in his work the tendency in much current educational discourse to rely on theories which regard attention as a natural disposition and which claim that students can only stay attentive for fifteen or twenty minutes at most (saying thus that traditional classes which run one up till two hours are outdated, a form of unnecessary infliction of discipline on the young, and above all a complete waste of time). Rather, Stiegler argues that attention *itself* should be the main objective of education. There is indeed a natural disposition to lose one's concentration and to look continuously elsewhere for other or more stimulating impulses – an opportunity offered abundantly by smartphones. However, the core task of education is precisely to *form* attention, in the sense of disciplining people who are not inclined to sit still for say an hour, but also – and more importantly - in the sense of teaching a subject matter in such a way that students may find it interesting enough to remain focused. So, instead of demanding the educational system to adapt itself to the 'laws of nature', we should demand, train and invite students to overcome certain natural tendencies.

If this argument might sound old guard, one must take into account that Stiegler is the opposite of a diehard technophobe. He holds the view that in the very constitution of our subjectivities we are to a large degree dependent upon the use of concrete technologies. Mind, first, that for Stiegler the word technology has a broad meaning. It comprises *both* tools *and* practices or routines related to the use of these tools. Furthermore, it isn't limited to the mechanical and electronic forms of technology we usually associate with this term. A stone axe is as *technological* as a cell phone is. And cutting trees is as much a *technological* activity as texting a message. I take it that Stiegler and Riis have opposed views on this point, as Riis tends to deal with ICT in isolation from other technologies. Furthermore, Stiegler disagrees with Riss because he claims that the repeated use of these tools and the slow acquisition of related practices most literally 'form' us: they decide on what we can and cannot do, say and think. According to the place and time we happen to live, we are 'shaped' differently as human beings. The contingent invention of particular technologies, and their proliferation within a given culture, decides on what it means to be a human being. Here, Stiegler's ideas are on a par with the so called *literacy hypothesis* (e.g. Goody & Watt 1968). According to this view, the invention of the (alphabetic) writing system, which is after all a technology in its own right, has brought about a profound change in the way humans relate to the world, others and themselves (viz. in a linearly ordered and homogenized fashion). Analogously, the advent of digital technologies might bring along a similarly fundamental cultural transition.

This view has major implications for education. According to Stiegler, education is (like all other human endeavours) dependent upon the use of particular technologies (e.g. reading and writing technologies), and moreover it is the time and place *par excellence* where the

new generation gets initiated in the use of culturally prevailing technologies. Therefore, he defends a typically 'school' form of education, as it is of the greatest importance that the new generation comes to embody - by repeated and disciplined exercise - the 'grammar' that regulates these technologies. Embodiment and grammar should be taken most literally here: particular dispositions become 'engraved' (the original, Ancient Greek, meaning of the word 'grammein') in students' bodies.

Therefore, in a certain sense at least, it is entirely *immaterial* whether the prevailing cultural technologies are pre-digital or digital ones. We have always been dependent upon technologies for our subject-formation, and it has always been the task of formal education to ensure that this formation doesn't turn into deformation. The need for teaching ICT literacy draws not so much from the fact that today we are faced with more (or more pervasive and dangerous) technologies than we used to, so much as from the fact that humankind's dependency upon technology always demands an adequately educational response. In another sense, however, it *is* of the highest importance whether or not the prevailing cultural technologies are pre-digital or digital. Substituting traditional technologies of reading and writing with digital ones might go together with the formation of entirely new and unforeseeable forms of subjectivity. And as such, this would also imply a *profound shift* in what it means to become *an educated person*.

All this serves as a further justification of fostering ICT literacy in education, as Riss' defends. However, Stiegler's arguments also imply a double criticism towards Riss' position. First, the position Riis takes could be termed *external*: he starts from an idea about education that is not affected by technological evolutions and in view of which these evolutions should be assessed. This is a position which has been taken innumerable times by educationalists, since the days of Socrates: in order to become a free and sensible human being, one must become conscious of the limitations of the situation one is in. One has to leave the cave. Defending a similar point of view, the German 'medialogist' Torsten Meyer (2010) likens the current situation of the digital natives to the fish in the water that are unaware of their own life conditions (as they have never experienced the opposition between sea and air/land), but also to the famous 1998 film *The Truman Show*, in which the protagonist is only permitted to realize the conditions he is in (i.e a fully staged life) upon touching the wall of the gigantic television studio in which he has been living as far as he can recall. What is at stake is thus becoming conscious of conditions that escape our attention by taking a position *outside* of these conditions. I think this is exactly what Riis calls for.

Over and against this, I argue that the very notion of *what it means to become an educated person* doesn't remain, from and for all eternity, external to (and thus unaffected by) contingent technological inventions. Therefore I would argue for what might be called an *internal* concept of ICT literacy (Cf. Vlieghe 2013). This not to say that we just have to welcome and embrace, resignedly, the latest technology, but rather that we need to take a critical point of view *from within* the technological conditions that happen to be the contemporary ones. In order to clarify this point, I pass on to a second critique of Riis' ideas. Although I fully share his criticism concerning current tendencies that regard ICT as a merely practical competence or as an end-in-itself, I don't agree to his plea for ICT literacy in a non-technical sense. On the contrary, in order to develop a critical and internal form of ICT literacy, what is required is precisely an initiation into ICT technology in a most *technical* manner. Literally.

Returning a last time to the analogy of learning to read and write in a traditional way, it could be said that the training of basic skills, such as spelling and grammar, always aims at *more* than merely to come and read/write swiftly and without mistakes. What is at stake in the school-like exercise of reading/writing letters, words and sentences is that students experience the production of text *from the inside*. By repeating, over and over again, the same letters and words (what Stiegler calls 'grammatization') students not only gain proficiency in reading/writing, but moreover come and take a specific relation or attitude towards the texts they read and write. It is as if they acquire a practiced and *first-hand* knowledge of what it means to generate text. Otherwise stated, repeated exercise may offer them a heavily embodied sense of the possibilities (and therefore also of the constraints) the use of this particular technology involves.

Likewise, a case could be made for a *spelling and a grammar of the digital*, i.e. a training at school of the operations that constitute digital stuff, in such a way that students gain a deeply embodied sense and inside knowledge of the possibilities and limitations inherent to digital technologies. So, in sum, I fully concur with Riss that we don't need the school to improve the practical ICT competences of the generation of digital natives, as they already possess these (in the same way that children coming to school already can speak and don't need the school for *that*). Rather, the school – as a preparation for the art of living – could contribute to a grammatization of digital literacy in a most technical sense of this word: a bodily ingrained, practiced knowledge of what it means to produce digital stuff. This opens the possibility of relating to the productive digital capacities one has, which also allows for a critical attitude vis- à-vis ICT.

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